**Mike Jacobs**

**Dr. William Merrill**

**Edu. 642**

**Dec. 1, 2009**

**The effects of digital photo manipulation on Educational settings**

[Confucius](http://en.wikipedia.org/wiki/Confucius) once said “a picture is worth a thousand words.” Based on this quote it can be argued that a manipulated photo that is produced to deceive a viewer is worth a thousand lies. Digital photo manipulation is becoming more and more common in our era. It used to be that only a very few skilled painters and artists were able to pull off high quality, misleading image manipulations. Today anyone with a computer some free software, and the motive to do so can make basic quality manipulations. Photo manipulations are described by Pettersson as “Conscious and perhaps even unconscious deception, falsification and manipulation of pictures- through tampering, biased selection or improper captions – occur rather often, resulting in readers being manipulated deluded and mislead,” (Pettersson, 2002). Susan Sontag wrote “In America, the photographer is not simply the person who records the past, but the one who invents it.” In this paper I would like to discuss the history of photo manipulation, positive uses, negative uses, and how we as teachers should respond in the classroom.

**The history of photo manipulation**

Photo manipulation can be traced to the mid 1800’s. In early photographs artists would use tactics such as over/underexposing, bluring images, layering images using multiple negatives, or simply cutting, pasting, and airbrushing. As early as the 1840, Hippolyte Bayard, a French photographer staged a picture of himself as a drowned man because he thought that he was not getting enough attention from the French government (Hafner, 2004). Soviet photo artists became masters of manipulation after Lenin and Trotsky began their power struggle. They completely erased Trotsky from many images in an attempt to build distance from him and literally erase him from history. They did the opposite with Lenin and writer Maxim Gorky. Photo artists took a photo where Lenin and Maxim are talking at a social function with over 20 other people. Artists removed the other people to make it appear as if the two are having a private conversation (Hafner, 2004). After the digital revolution it became easier to manipulate images. *National Geographic* caused a small outcry when they realigned the pyramids for their cover in 1982. O.J. Simpson’s mug shot was darkened on the cover of *Time* in 1994. (Hofer, Swan, 2005) Perhaps the most recent incident of photo manipulation that has received a lot of attention is the photo of John Kerry and Jane Fonda supposedly sharing the stage at a Vietnam War protest in Miami Beach. (Hafner, 2004) Two separate images were “photoshopped” together in an attempt to slow John Kerry’s momentum in his presidential race. There is also the image of President Bush holding a book upside down at a function to support literacy on 9/11. All of these are examples of how artists have attempted to manipulate viewers to see their agenda. It is our job as teachers to make sure that our students are not easily manipulated by falsified images as they step into their adult years.

**Positive uses of photo manipulation**

I would like to point out that there are cases and uses of digitally altered photographs which are ethical and benefit society. When John Knoll developed Photoshop he did not make it to be misused, rather he created it for its benefits (Hafner, 2004). We use image manipulation to build logos to draw recognition to a specific product. We use image alterations to show clarity or to tell a story. In cases where we can see from the context that the author has a specific up front agenda that is not hidden it is fitting to use some forms of photo alterations. If a writer is working on a piece that is about soldiers in Iraq helping citizens of that country, the basic camera angles and framing will obviously be biased and that is fine because the piece is being presented as a biased work. We get into dangerous territory when a piece is presented as non-biased but its words and images have been tampered with. We also use digital alterations to build animations that help students learn.

**Negative uses of photo manipulation**

While there are positive used for digital manipulations there are a lot of problems that arise out of manipulated photos. First of all there is the basic realization that a tampered photo is made to mislead someone and change their beliefs. Ken Light quotes about the Kerry/ Fonda image “What if that photo has floated around two days before the general election and there wasn’t time to say it’s not true?” People’s foundational beliefs are to be built on truth, not manipulated pictures no matter how convincing they are. Second, tampered photos can and will lead to a mistrust of the media (Pettersson, 2002) If we become accustomed to deception, our trust in the media will diminish. Third, even when we expect that there has been manipulation, we are still left vulnerable at a subconscious level to its negative effects. Magazines like *Vanity Flair* and *Cosmopolitan* regularly use digital alteration techniques to make their already skinny models look even skinnier. This leaves a out of reach goals for young girls that even the top models can’t reach. This can lead to low self esteem and eating disorders. Finally we have found that digitally manipulated images can skew our perceptions even when we know the truth. After seeing the image of President Bush with the book upside down multiple times, the average American, even after knowing the truth will still be biased into saying that President Bush has the persona of being unintelligent. Mr. Franken (the original owner of the Fonda image) said, “The damage is not going to be undone later by saying it was a doctored picture.” Barbara Mikkelson (a creator of Snopes.com) puts it, “No correction will have the same impact as the original.” (Hafner, 2004)

**How teachers should respond to digital manipulation**

The question now remains: what should we as teachers do about digital manipulation. We can not, nor do we want to put the genie back into the bottle. The first teaching strategy that we must put into practice is to teach our students to scrutinize images (Hofer, 2005). We must teach them critical thinking skills so they can think about sourcing, context, bias, and who is releasing the photo. The second strategy is to let kids manipulate images. After a tutorial students should be able to do basic manipulation on images. The following example assignment would be useful to teach students about bias as well as expose them to digital manipulations. First divide the class into to groups. One group is for the war in Iraq, and the other group is against the war in Iraq. Next have students make posters using images of the war. Have them change lighting, captions, or other aspects to create a bias. It is important to have students put the original photos and the back of the poster and clearly mark on the front that the images have been manipulated. An assignment like this will expose students to how little work it is to digitally alter an image. This will make students more vigilant to think critically about the images they see on a daily basis (Hofer, 2005) The third strategy is to hold the media responsiable. We as teachers should lead the way when we tell the media that they have a responsibility to show truth, and not skew it while claiming to be showing both sides of the story. The fourth strategy that we as teachers should be doing for our students is to show our students sources like snopes.com. In doing this we at least give them a resource to research if they are looking at truth or spreading a lie. A final strategy involves technology. While digital technology is making it easier to alter photos it is also making it more difficult to successfully get away with it. The creation of semi-fragile watermarks can help people know when an image has been altered (Lin, 2008). A semi-fragile watermark is a digital code put in an image that is not visible to the naked eye but tells the origin of the photo. When an image is altered in anyway, the watermark falls apart, or changes telling the original owners that the image has been tampered with. We need to make our students aware of these watermarks and bolster their use.

In conclusion, while digital manipulations of images are productive for multiple uses, we need to be concerned about the very destructive properties found in negative uses of image alterations. To combat this we need to give our students many tools that they can use to distinguish the validity of an image and not get manipulated with the image itself. Using media to change people’s opinions in dishonest ways have been ever changing as media changes. Instead of demonizing technology we must teach our students how to adapt, survive, and flourish in the new digital surroundings we find ourselves in. Lewis Hine’s once said, “While photographs may not lie, liars may photograph.” Or if you prefer George Orwell put it, “The past was erased, the erasure was forgotten, the lie became truth.”

Hafner, K. (2004, March 11). The camera never lies, but the software can [Electronic version]. *Technology*, 1-5.

Hofer, M., & Swan, K. O. (2005). Digital image manipulation: A compelling means to engage

students in discussion of point of view and perspective. *Contemporary Issues in Technology and*

*Teacher Education*, 5(3/4), 290-299.

Lin, E. T., Podilchuk, C. I., & Delp, E. J. (2008). Detection of image alterations using semi-fragile watermarks. Retrieved November 30, 2009

Pettersson, R. (2002, April 20). Image manipulation [Electronic version]. *Media and Education*, 1-6.